

ABSTRACT

A compound semiconductor film is formed with a compound containing: A. at least one element selected from zinc, tin, cadmium, indium, and gallium; B. at least one element selected from oxygen and sulfur; and C. an element of Group IIa. A solar cell is configured to include: a substrate (11); a conductive layer (12) formed on the substrate (11); a light-absorption layer (13) that is formed on the conductive layer (12) with a compound semiconductor containing an element of Group Ib, an element of Group IIIa, and an element of Group VIa; the above-described compound semiconductor film (14) formed on the light-absorption layer (13); and a transparent conductive layer (16) formed on the compound semiconductor film (14). Such a configuration provides a compound semiconductor film having a low electric resistivity. Further by employing the compound semiconductor film having a low electric resistivity as a buffer layer of a solar cell, the energy conversion efficiency of the solar cell is improved.